WATER RESOURCES PROTECTION BYLAW

Chapter XVIII of Town of Wenham Bylaws **REGULATIONS**

PART 1: GENERAL REGULATIONS

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PART 1: GENERAL REGULATIONS

10.01 Introduction and Purpose

(1) <u>Introduction</u> These Regulaitons are promulgated by the Wenham Conservation Commission pursuant to the authority granted to it under Wenham General Laws Chapter XVIII, the Water Resources Protection Bylaw (hereinafter referred to as the Bylaw). These Regulations shall complement the Bylaw, and shall have the force of law upon their effective date.

Part 1 of these Regulations provides definitions and procedures. Except where otherwise stated in the Bylaw or in the rules and regulations promulgated under the Bylaw, the definitions, pocedures, and performance standards of the Wetlands Protection Act, M. G. L. Chapter 131, section 40 and associated Regulations, 310 CMR 10.00 as promulgated April 1, 1983, and amended November 1, 1987, shall apply additionally to these regulations.

- (2) <u>Purpose</u> The Bylaw sets forth a public review and decision-making process by which activities affecting areas subject to jurisdiction under the Bylaw are to be regulated to protect the water resources, wetlands, and adjoining areas in Wenham by prior review and control of activities deemed by the Conservation Commission likely to have significant or cumulatively detrimental effect upon the following values:
 - -public or private water supply,
 - -groundwater,
 - -fisheries.
 - -wildlife,
 - -wildlife habitat,
 - -the prevention and control of flooding,

- -the prevention and control of erosion,
- -the prevention and control of sedimentation,
- -the prevention and control of storm damage,
- -the prevention and control of pollution.

The purpose of these regulations is to define and clarify this decision-making process by establishing standard definitions and uniform procedures by which the Conservation Commission may carry out its responsibilities under the Bylaw.

10.02 Statement of Jurisdiction

- (1) <u>Areas Subject to Protection Under the Bylaw</u> The following areas are subject to protection under the Bylaw:
 - (a) Any freshwater wetlands as determined by vegetational community, soil composition, or hydrologic regime, including:
 - any marsh
 - any wet meadow
 - any bog
 - any swamp
 - (b) Any waterway or waterbody including:
 - any lake
 - any stream intermittent or continuous, natural or man-made
 - any river
 - any pond intermittent or continuous, natural or man-made
 - (c) Land under such waters
 - (d) Any bank
 - (e) Any beach
 - (f) Any area within 100 feeet of those areas listed above
 - (g) Any land subject to flooding or inundation by groundwater, surface water or storm water
- (2) Activities Subject to Regulation Under the Bylaw
- (a) Activities Within the Areas Subject to Protection under the Bylaw Any activity proposed or undertaken within an area specified in 100 CCR:10.02 (1) which will remove, fill, dredge, discharge into, build upon, otherwise alter or degrade that area is subject to regulation under the Bylaw and requires the filing of an Application for Permit (Notice of Intent).
- (b) Activities outside the areas subject to Protection under the Bylaw Any activity proposed or undertaken outside the areas specified in 100 CCR: 10.02 (1) is not subject to regulation under

the bylaw and does not require the filing of an Application for Permit unless it is reasonably foreseeable that the activity will alter or degrade an area subject to regulation under the Bylaw.

In the event that the issuing authority determines that such activity has altered or is likely to alter or degrade an Area Subject to Protection Under the Bylaw, after hearing in accordance with procedures set forth, it shall impose such conditions on the activity or any portion thereof as it deenms necessary to contribute to the protection of values of the Bylaw.

10.03 General Provisions

(1) Burden of Proof

- (a) Any person who files an Application for Permit (Notice of Intent) to perform any work within an area subject to jurisdiction under section 2 of the Bylaw has the burden of demonstrating to the Commission:
- 1. that the area is not significant to the protection of any of the values identified in the Bylaw; or
- 2 that the proposed work will contribute to the protection of any of the values identified in the Bylaw.
- (2) Burden of Going Forward*
- (3) Presumption Concerning Title 5 of the State Environmental Code*
- (4) Presumption Concerning Point-Source Discharge*
- (5) <u>Presumption Of Significance</u> Each area subject to jurisdiction under the Bylaw is presumed to be significant to one or more of the values identified in the Bylaw.
- (6) Presumption Concerning Application of Herbicides *
- (7) Fees

(a) General Fee Provisions

- 1. Requests for Determination. All Requests for Determination pursuant to 100 CCR 10.00 shall be accompanied by a filing fee of \$25.
- 2. Applications for Permits. With the exception of Applications for Town projects, all Applications for Permits pursuant to 100 CCR 10.00 shall be accompanied by a non-refundable filing fee. The filing fee shall be calculated by the Conservation Commission as per the following schedule:

For all activities described under Category 1 of 310 CMR 10.03(7)(c)1., \$10.00 per activity;

For all activities described under Category 2 of 310 CMR 10.03(7)(c)1., \$262.50 per activity;

For all activities described under Category 3 of 310 CMR 10.03(7)(c)1., \$125.00 per activity;

For all activities described under Category 4 of 310 CMR 10.03(7)(c)1., no fee per activity;

For all activities described under Category 5 of 310 CMR 10.03(7)(c)1., no fee per activity;

For all activities described under Category 6 of 310 CMR 10.03(7)(c)1., no fee per activity.

- 3. Project Review Fees. When an Application for Permit Under the Bylaw is filed, the Commission may determine that a Project Review Fee is required. When required, the cost will be determined by at least one written estimate and shall not exceed the amount of \$7500. The Applicant shall be notified in writing of the need for and the cost of this review. The Applicant shall deposit the estimated amount with the Commission in Project Review Fund within a time period to be determined by the Commission. Any unused portion of this amount will be returned to the Applicant after completion of the review, but in no event later than two months from the issuance of a Permit under the Bylaw for the project.
- 4. Special Environmental Impact Review Fee. When an Application for Permit Under the Bylaw is filed, the Commission may determine that a Special Environmental Impact Review Fee is required. When required, the cost will be determined by at least one written estimate and shall not exceed the amount of \$7500. The Applicant shall be notified in writing of the need for and the cost of this review. The Applicant shall deposit the estimated amount with the Commission in a Special Environmental Impact Review Fund within a time period to be determined by the Commission. Any unused portion of this amount will be returned to the Applicant after completion of the review, but in no event later than two months from the issuance of a Permit under the Bylaw for the project.

(b) Whenever the Conservation Commission determines that an inadequate fee has been paid, the time period for the Commission to act shall be stayed until the balance of the fee is paid."

10.04 Definitions

Activity: means any form of draining dumping, dredging, damming, discharging, excavating,

blasting, filling or grading; the erection, reconstruction, or expansion of any buildings or structures; the driving of pilings; the construction or improvements of roads and other ways; the changing of run-off characteristics; the interception or diversion of ground or surface water; the installation of drainage, sewage, and water systems; the discharging of pollutants; the destruction of plant life; and or any other changing of the physical characteristics of land.

Alter: means to change the condition of any area subject to jurisdiction under section 2 of the Bylaw, including, but not limited to the following:

- (a) the changing of pre-existing drainage characteristics, sedimentation patterns, flow patterns, and flood retention areas;
- (b) the lowering of the water level or water table;
- (c) the destruction of vegetation including spraying of defoliants, and other chemical substances, by burning, by dumping of fill or by the replacement of existing wetlands vegetation with other species;
- (d) the changing of water temperature, biological oxygen demand (BOD), and other physical, biological, or chemical characteristics of the receiving water.

<u>Application for Permit under the Bylaw</u>: means the written application filed by any person intending to remove, fill, dredge, discharge into, build upon, otherwise alter or carry out activity not exempted from this bylaw in an area subject to regulation under the Bylaw or activity that will significantly alter or degrade these ares. It shall be made on Form 3 or 4 of 100 CCR 10.99 (310 CMR 10.99).

Areas subject to flooding: Depressions or closed basins which serve as ponding areas for runoff, snowmelt, heavy precipitation, or high ground water which has risen above the ground surface on a yearly basis, and areas which flood from a rise in a bordering waterway or water body.

<u>Buffer Zone</u>: means the Resource Area (Area Subject to Protection Under the Bylaw) that extends 100 feet horizontally outward from the boundary of those areas specified in 100 CCR: 10.01 (1) (a)-(e).

<u>Bylaw</u>: means the Town of Wenham Water Resources Protection Bylaw, General Town Bylaws Chapter XVII.

<u>Hydric Soils</u>: means soils which, in an undrainaed condition, display characteristics of a hydrologic regime of periodic annual saturation due to high groundwater, flooding or ponding that results in an anaerobic condition which favors the growth and regeneration of hydrophytic (wetland) vegetation. The following types of soils are hydric:

- (a) all organic soils (Histosols) except Folists;
- (b) mineral soils in Aquic subgroups, Albolls suborder, Salorthids great group, or Pell great Groups of Vertists which are:
 - (1) somewhat poorly drained (as the soils type may be defined from time to time by the

- U.S. Soil Conservation Service) and have a water table less than 15 cm from the surface at some time during the growing season, or
- (2) poorly drained or very poorly drained (as those soil types may be defined from time to time by the U. S. Soils Conservation Service) and have either:
 - (i) a water table at less than 30 cm from the surface at some time during the growing season if permeability is equal to or greater than 15 cm/hour in all layers within 60 cm, or
 - (ii) a water table at less than 45 cm from the surface at some time during the growing season if permeability is less than 15 cm/hour in any layers within 60 cm:
- (3) mineral soils which are ponded during any part of the growing season; and
- (4) mineral soils which are frequently flooded for long duration (more than 7 days) or flooded for very long duration (more than one month) during the growing season.

<u>Intermittent pond</u>: Areas subject to flooding which form temporary confined bodies of water during periods of high water table and high input from spring runoff or snowmelt or heavy precipitation, and support wetland vegetation or serve as breeding habitat for species of amphibians.

<u>Project Review</u>: means a review by a qualified professional engaged by the Commission that examines engineering design, calculations and other information provided by the applicant and other sources for completeness, accuracy, and effectiveness, including but not limited to the following: run-off calculations, drainage and drainage structures, slopes, headwalls and retaining structures, siting of septic system relative to Resource Areas, soils information, subsurface hydrology, plans for sequencing construction, proposed crosion and sedimentation controls.

Resource Area: means all Areas Subject to Regulation under the Bylaw as listed in 10.02 (1) 100 CCR.

<u>Special Environmental Impact Review</u>: means a review by a qualified professional that examines the information provided by the applicant and other sources of implications and impacts of a project on resources including but not limited to: hydrology, wildlife, wildlife habitat, water quality, and the other values protected by this Bylaw, and function and feasibility of proposed wetland replication areas.

10.05 Procedures

- (1) Time periods*
- (2) Actions by Conservation Commission*
- (3) Determinations of Applicability Under the Bylaw

(a) Requests for Determinations of Applicability Under the Bylaw

- 1. Any person who desires a determination as to whether the Bylaw applies to land or to work that may affect an Area Subject to Protection under the Bylaw may submit to the Conservation Commission a Request for Determination of Applicability, Form 1. Said request shall include sufficient information to enable the Commission to find and view the area and to determine whether the proposed work will alter an Area Subject to Protection under the Bylaw. If the determination includes the delineation of 400 or more linear feet of Freshwater Wetlands, the applicant must use the Abbreviated Notice of Resource Area Delineation in subsection 10.05(4)(b)2 instead of the Request for Determination.
- 2. A Request for Determination shall include certification that the owner of the area subject to the Request, if the person making the Request is not the owner, has been notified that a Determination is being requested.

(b) Determinations of Applicability Under the Bylaw

- 1. Within 28 days after the date of receipt of the Request for Determination, the Commission shall hold a public hearing and issue a Determination of Applicability, Form 2. Notice of the time and place of the public hearing will be made shall be given by the Commission at the expense of the person making the request not less than five days prior to the hearing, by publication in a newspaper of general circulation in the town of Wenham. Notice shall also be given in accordance with MGL Chapter 39, section 23B by the person making the Request to the owner, the abutters to the property, and the Board of Health, Planning board, Board of Selectmen, Building Inspector, and Board of Appeals. Said Determination shall be signed by a majority of the Commission and copies thereof shall be sent to the person making the Request and the owner, by certified mail or hand delivery. Said Determination shall be valid for three years from the date of issuance.
- 2. The Commission shall find that the Bylaw applies to the land, or a portion thereof, if it is and Area Subject to Protection Under the Bylaw as defined in 100 CCR 10.02. The Commission shall find that the Bylaw applies to the work, or portion thereof, if it is and Activity Subject to Regulation Under the Bylaw as defined in 100 CCR 10.02."

(4) Applications for Permits Under the Bylaw

- (a) Any person who proposes to do work that will remove, fill, dredge, discharge into, build upon, or otherwise alter or degrade and Area Subject to Protection Under the Bylaw shall file an Application for Permit Under the Bylaw (Notice of Intent, Form 3) and other application materials in accordance with the submittal requirements set forth in the General Instructions for Completing Notice of Intent (Form 3) and Abbreviated Notice of Intent (Form 4).
- (b) For certain purposes, other forms of Notice may be used:

- For certain projects, applicants may at their option use the Abbriviated Notice of Intent. This latter form may only be used when all three of the following circumstances exist:
 - a. the proposed work is within those Areas Subject to Protection Under the Bylaw defined in subsections 100 CMR 10.02(1)(f) and 10.02(1)(g); and
 - b. the proposed work will disturb less than 1000 square feet of surface area within said Areas Subject to Protection Under the Bylaw; and
 - c. the proposed work will not require U.S. Army Corps of Engineers Section 10 or Section 404 permits, or a license from the MA Division of Waterways pursuant to MGL, Ch. 91.
- 2. To establish the extent of any Area Subject to Protection Under the Bylaw, applicants may use the Abbreviated Notice of Resource Area Delineation for the confirmation of a delineated resource area boundary on the site, prior to filing an Application for Permit for proposed work. Alternatively, the boundary of an Area Subject to Protection Under the Bylaw may be determined through the filing of an Application for Permit.
- (c) Upon receipt of the minimum submittal requirements for the Application, the Commission may issue a file number.
- (d) In the event that only a portion of a proposed project or activity lies within an Area Subject to Protection Under the Bylaw, the Application shall include sufficient information concerning the proposed work both inside and outside the Areas Subject to Protection Under the Bylaw for the Commission to determine whether said work is likely to alter or degrade said Areas.
- (e) *
- (f) *
- (g) *
- (h) * "
- (5) Public Hearings by the Conservation Commission*
- (6) Permits Regulating the Work*
- (7) Monitoring of Projects after Issuance of Permits*
- (8) Extensions of Permits *
- (9) Certificates of Compliance *

10.06 Emergencies*

- (1)-(5) *
- (6) After completion of the emergency work an as-built plan must be filed with the Commission within 30 days from date of certification.
- (7) After completion of the emergency work, the Commission may, after notice and public heqaring, require restoration, project modification, and/or mitigation measures to protect the values stated in the Bylaw.

10.07 Security

- (1) As part of a Pemrit issued under this bylaw, in addition to any security required by any other municipal or state board, agency, or official, the Commission may require that the performance and observance of the conditions imposed in a Permit issued hereunder be secured wholly or in part by one or more of the following methods:
 - (a) a bond or deposit of money or negotiable securities or other undertaking of financial resposibility.
 - (b) a conservation restriction, easement or other covenant enforceable in a court of law, executed and duly recorded by the owner of record.

(2) Bonds or Surety

The amount of a Bond or Surety, which may be required under section 8 of the Bylaw shall be that amount, to be held in escrow, to secure faithful and satisfactory performance of all or any part of the conditions required by the Permit.

The amount of a Bond or Surety shall be determined by the Commission and/or any other person knowledgeable in such matters as designated by the Commission. A bond estimate may be requested from the Commission, and will remain effective for sixty (60) days. The cost of this estimagfte will be borne by the applicant, and shalll reflect the cost to the Town to carry out any remedial work necessary to bring the project into compliance with the requirements of the Permit should that be necessary.

Such bond or surety shall be approved as to form and manner of execution by the Town Counsel and as to sureties by the Town Treasurer, and shall be contingent upon the completion of such work and observance of conditions within the time frame of the Permit or extension, if granted. This Bond or Surety shall be approved and filed with the Town prior to the close of the Public Hearing.

A Bond or Surety shall be released by the Commission only on satisfactory completion of the conditions of a permit and Issuance of a Certificate of Compliance.

- (3) <u>Covenant</u> The Commission may require the applicant to secure the performance and observance of conditions required by the Permit for the project, by a conservation restriction, easement or other covenant enforceable in a court of law, executed and duly recorded by the owner of record, running with the land to the benefit of the Town and members of the public, whereby the conditions of the Permits shall be satisfactorily performed and observed before any lot may be conveyed.
- (4) <u>Release of Performance Guarantee</u> Upon completion of the project or that part of the project conditioned in the Permit, security for the performance of which was given by Bond, Surety, or Convenant, the applicant may request and agree on terms of release with the Commission.

If the Commission determines that said project had been completed in compliance with the conditions of the Permit, it shall release the interest of the Town in such bond or surety and return the bond or surety to the person who furnished the same, or release the covenant, if appropriate.

If after receipt of the Request for Release of Performance Guarantee, the Commission determines that said project has not been completed in compliance with the conditions of the Permit, it shall, within forty-five (45) days, specifyu to the applicant in writing, the details wherein said work fails to comply with the Permit. The Applicant will be fiven a reasonable amount of time determined by the

Commission sufficient to make the necessary remedial measures, but if at the end of the granted period of time the applicant fails to complete the remedial measures or to take such steps as required by the Commission to bring the project into compliance, and after public meeting on this matter, the Commission may take steps to hire consultants, engage whatever professional necessary to perform the work necessary to bring the project into compliance using such funds as necessary from the Bond or Surety, the remainder of which, if any, shall be released to the person who furnished the same.

10.08 Enforcement

- (1) When the Conservation Commission determines that an activity is in violation of the Bylaw or a Permit issued under the Bylaw, the Commission may:
 - (a) issue an Enforcement Order under the Bylaw, and/or
 - (b) hold an Administrative Hearing under the Bylaw to consider whether the landowner or party (ies) responsible for the violation should be fined for the violation.
- (2) Violations include, but are not limited to:
 - (a) failure to comply with a Permit, such as failure to observe a particular condition or time period specified in the Permit:
 - (b) failure to complete work described in a Permit;
 - (c) failure to obtain a valid Permit prior to conducting an activity subject to regulation under the Bylaw;
 - (d) causing, suffering, or allowing of illegal work or activity;
 - (e) failure or refusal to comply with an enforcement order;
 - (f) failure or refusal to remove illegal fill, restore property, or obtain necessary approvals.
- (3) In the appropriate case, the Commission may issue an Enforcement Order under the Wetlands Protection Act, M.G.L. Chapter 131, section 40, in lieu of or in additions to an Enforcement Order under the Bylaw.
- (4) An Enforcement Order under the Bylaw issued by the Conservation Commission shall be signed by a majority of the Commission. In a situation requiring immediate action, an Enforcement Order under the Bylaw may be signed by a single member or agent of the Commission, followed by ratification of said Order by a majority of the members at the next scheduled meeting of the Commission.
- (5) Before a fine is imposed or adjusted, the Commission shall hold an Administrative Hearing to discuss the violation and to give the landowner or the landowner's representative an opportunity to respond to the evidence and circumstances. The landowner must be given at least 48 hours notice in writing of the date, time, and place of an Administrative Hearing, by certified mail or hand delivery. If a majority of the Commission present at the Hearing finds by the evidence that a violation has occurred, the landowner shall be subject to a fine of not more than three-hundred dollars (\$300.00) per violation.

The amount of the fine per violation will be determinated by the Commission at the Administrative Hearing.

- (6) The Commission shall take into account the nature of the violation as follows:
 - (a) For purposes of determining fines, each day or portion threerof during which non-compliance with an Enforcement Order under the bylaw continues shall constitute a separate offense, and each provision of the Bylaw or Permit violated shall constitute a separate offense.
 - (b) In the case of destruction of vegetation, the Commission may continue indefinitely any public hearing for any part of that site until the vegetation has reemerged, grown or otherwise established itself to the Commission's satisfaction. In the meantime, all work shall cease at the site.
- (7) The notice of a fine or fines and explanation thereof, including the date or approximate date of the violation from which daily violations are counted, will be sent in writing to the responsible landowner(s) by certified mail or hand-delivery. The fine or fines are payable to the Town of Wenham within twenty-one days of the date of issuance of the notice.
- (8) The Town Collector may record in the Registry of Deeds a conservation lien for non-payment of accumulated fines. The lien shall be against all property including and contiguous to the area of the violation and within the Town boundaries held by the landowner at the time of the violation. The Commission shall hold an Administrative Hearing, to which the landowner is given written notice as described above, in order to decide the amount of the lien which may not exceed the amount of accumulated fines to date.
- (9) A landowner can apply in writing for a continuance of the Administrative Hearing stating in full the reason for the request. The Commission may grant a continuance for compelling and/or environmentally sound reasons.
- (10) The Commission reserves the right to adjust the fine in response to new information or new circumstances at an Administrative Hearing under the Bylaw to which the landowner will be given notice as above. A written notice of the adjustment of fine shall be sent to the landowner by certified mail or hand-delivered.
- (11) Unlkess otherwise stated in the Bylaw or in the rules and regulations promulgated under the Bylaw, the definitions, procedures, and performance standards of the Wetlands Protection Act, M.G.L. Chapter 131, section 40 and associated Regulations, 310 CMR 10.00 as promulgated April 1, 1983, and amended November 1, 1987, shall apply.

10.09 Severability

100 CCR: TOWN OF WENHAM CONSERVATION COMMISSION

If any section or provision of any part of these regulations or the application thereof, is held to be invalid, such invalidity shall not affect any other section or provision thereof nor shall it invalidate any permit or determination which previously had been issued.

10.10 Effectiuve Date

10.11 through 10.50: Reserved

Town of Wenham Water Resources Protection Bylaw Chapter XVIII Part II Regulations

PART II: REGULATIONS FOR RESOURCE AREAS

Section

- 10.51: Introduction
- 10.52: Purpose
- 10.53: General Provisions
- 10.54: Bank
- 10.55: Wetlands (Wet Meadows, Marshes, Swamps, and Bogs)
- 10.56: Water Bodies and Waterways (Creeks, Rivers, Streams, Ponds, Lakes) and Land under Water Bodies and Waterways
- 10.57: Land Subject to Flooding
- 10.58: Buffer Zones
- 10.59: Rare or Endangered Species
- 10.60: Wildlife and Wildlife Habitat Evaluations
- (10.61 through 10.98: Reserved)
- 10.99: Forms

PART II: REGULATIONS FOR RESOURCE AREAS

10.51 Introduction*

10.52 Purpose*

10.53 General Provisions

- (1) Protecting interests when no presumption of significance is stated*
- (2) Restriction Orders *
- (3) Limited Projects: Notwithstanding the provisions of the Bylaw regulation sections 10.54 through 10.60, the Commission may issue a Permit and impose such conditions as will contribute to the interests identified in the Bylaw permitting the following limited projects:
 - (a) Agriculture *
 - (b) cranberries *
 - (c) forestry*
 - (d) Utility work*
 - (e) Access road: the construction and maintenance of a new roadway or driveway of minimum legal and practical width where reasonable alternative means of access from a public way to an upland area is otherwise unavailable. In determining whether reasonable alternative means of access are available, the Commission may consider the

reasonableness of any available alternatives, including realignment or reconfiguration of the project to minimize disruption of the wetlands. The limited project exception does not contemplate maximum development of uplands at the expense of wetlands, which would result from locating access ways in wetland areas to the greatest extent possible.

Such roadway or driveway shall be constructed using the best available practices to minimize disturbance and maximize compliance with the applicable performance standards. In no case shall wetland filling for a roadway or driveway be greater than 2,500 square feet of an area specified in section 10.02(1)(a-e) in nor impact more than 20 linear feet of Bank. In addition, such roadway or driveway shall be constructed in a manner which does not adversely restrict the flow of surface or subsurface water and so that equivalent flood storage is maintained.

A second access road to the same upland area shall not qualify as a limited project.

- (f) Maintenance of existing public roadways, but limited to improving inadequate drainage systems.
- (g) The excavation of wildlife impoundments, farm ponds and ponds for fire protection, provided that no fill or other material is placed upon the wetland, or the values the wetland protects are not adversely affected by this activity.
- (h) The maintenance of beaches and boat launching ramps which existed on the effective date of Part II of Regulations for Wenham Water Resources Protection By-Law.
- (i) The maintenance, repair and improvement (but not substantial enlargement of structures, including buildings, piers, towers, headwalls, bridges and culverts which existed on the effective date of Part II of Regulations for Wenham Water Resources Protection By-Law.
- (j) *
- (k) The routine maintenance and repair of road drainage structures including culverts and catch basins, drainage easement, ditches, watercourses and artificial water conveyances to insure flow capacities which existed on the effective date of Part II of Regulations for Wenham Water Resources Protection By-law.
- (1) *
- (4) Improving resource areas *

10.54 Bank (Naturally Occurring Banks and Beaches) *

- (1) Preamble *
- (2) Definition, Critical Characteristcs and Boundary *
- (3) Presumption *
- (4) General Performance Standards *

10.55 Wetlands (Wet Meadows, Swamps, Bogs, Marshes)

(1) <u>Preamble</u> Freshwater Wetlands are likely to be significant to public and private water supply, ground water supply, flood control, storm damage prevention, prevention of pollution and the

protection of fisheries and to wildlife habitat.

The plant communities, soil, and associated low topography of Freshwater Wetlands remove or detain sediments, nutrients (such as nitrogen and phosphorus) and toxic substances (such as heavy metal compounds) that occur in runoff and flood water.

Some nutrients and toxic substances are detained for years in plant root systems or in the soils. Others are held by plants during the growing season and released as the plants decay in the fall and winter. This latter phenomenon delays the impacts of nutrients and toxins until the cold weather period, when such impacts are less likely to reduce water quality.

Freshwater Wetlands are areas where ground water discharges to the surface and where, under some circumstances, surface water discharges to the ground water. The profusion of vegetation and the low topography of Freshwater Wetlands slow down and reduce the passage of flood waters during periods of peak flows by providing temporary flood water storage, and by facilitating water removal through evaporation and transpiration. This reduces downstream flood crests and resulting damage to private and public property. During dry periods the water retained in Freshwater Wetlands is essential to the maintenenace of base flow levels in rivers and streams, which in turn is important to the protection of water quality and water supplies.

Wetlands rooted by adjacent water bodies and waterways provide food, breeding habitat and cover for fish. Fish populations in the larval stage are particularly dependent upon food provided by over-bank flooding which occurs during peak flow periods (extreme storms), because most river and stream channels do not provide sufficient quantities of the microscopic plant and animal life required for food.

Wetland vegetation supports a wide variety of insects, reptiles, amphibians, mammals and birds which are a source of food for important game fish. Bluegills (*Lepomis macrochirus*), pumpkinseeds (*Lepomis gibbosus*), yellow perch (*Perca flavescens*), rock bass (*Ambloplites rupestris*), and all trout species feed upon nonaquatic insects. Large-mouth bass (*Micropterus salmoides*), chain pickerel (*Esox niger*), and northern pike (*Esox lucius*) feed upon small mammals, snakes, nonaquatic insects, birds, and amphibians.

Freshwater Wetlands are probably the Town's most important habitat for wildlife. The hydrologic regime, plant community composition and structure, soil composition and structure, topography and water chemistry of Freshwater Wetlands provide important food, shelter, migratory and overwintering areas, and breeding areas for many birds, mammals, amphibians and reptiles. A wide variety of vegetative wetlands plants, the nature of which are determined in large part by the depth and duration of water, as well as soil and water composition, are utilized by varied species as important areas for mating, nesting, brood rearing, shelter, and (directly and indirectly) food. The diversity and interspersion of the vegetative structure is also important in determining the nature of its wildlife habitat. Different habitat characteristics are used by different wildflife species during summer, winter, and migratory seasons.

(2) Definition, Critical Characteristics and Boundary

Freshwater Wetlands are riverine wetlands, marshes, wet meadows, bogs, perched wetlands or swamps that meet at least one of the following requirements:

- (a) Fifty percent or more of the natural vegetative community must consist of obligate or facultative wetland plant species, as included or identified in generally accepted scientific or technical publications (such as, the Wetlands Plant List, Northeast Region for the National Wetlands Inventory, U.S. Fish and Wildlife Service).
- (b) The presence of a hydrologic regime that indicates a wet condition in which the soils are annually saturated, as evidenced by the observed or documented presence of groundwater generally within 24 inches of the surface at any time of the year or by soil gleying or soil mottling within 24 inches of the surface or identified as one of the hydric soils listed in 10.04.
- (c) The presence of hydric soils, mineral and/or organic types associated with wetlands as identified in 10.04.
- (d) Where the natural vegetative community has been destroyed, as for example by landscaping or agricultural use, or in violation of this by-law, the Commission may determine the area to be a Freshwater Wetland on the basis of annual soil saturation or soil analysis alone or may defer the determination until the natural vegetation has regrown.
- (3) <u>Presumption</u> Where a proposed activity involves the removing, filling, dredging, or altering of a Freshwater Wetland, the Commission shall presume that such area is significant to the interests specified in the Preamble section 10.55A(1). This presumption is rebuttable and may be overcome upon a clear showing that the Freshwater Wetland does not play a role in the protection of said interests. In the event that the presumption is determined to have been overcome, the Commission shall make a written determination to this effect, setting forth its grounds.

(4) General Performance Standards

- (a) Where the presumption set forth above is not overcome, any proposed work in a Freshwater Wetland shall not destroy or otherwise impair any portion of said area.
- (b) Notwithstanding section 4(a) above, the Commission may issue a Permit allowing work which results in the loss of up to 2,500 square feet of Freshwater Wetlands when said area is replaced in accordance with the following general conditions and any additional specific conditions the Commission deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost:
 - 1. the surface area of the replacement area to be created (the "replacement area") shall be at least equal to that of the area that will be lost (the "lost area"), at the discretion of the Commission the "replacement area" requirement may be more than equal to the area lost;
 - 2. The ground water and surface water elevation of the replacement area shall be approximately equal to that of the lost area;
 - 3. the overall horizontal configuration and location of the replacement area with respect to the bank shall be similar and contiguous to that of the lost area;
 - 4. the replacement area shall have an unrestricted hydraulic connection to the

same water body or waterway associated with the lost area;

- 5. the replacement area shall be contiguous to the same area of the water body or reach of the waterway as the lost area;
- 6. at least 75 percent of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons, and prior to said vegetative establishment any exposed soil in the replacement area shall be temporarily stabilized to prevent erosion in accordance with standard Soil Conservation Service methods;
- 7. the replacement area shall be successfully established and functioning at the site in a manner similar to that of the area lost prior to the start of any construction at the site in the area of commission jurisdiction. Alternately, at the discretion of the Commission, a surety bond or other instrument of security sufficient to cover the cost of remedial work, can be provided to assure the successful completion and function of this replacement area after completion of this project; and
- 8. the replacement area shall be provided in a manner which is consistent with all other General Performance Standards for each resource area described in these regulations.
- (c) Notwithstanding the provisions 4(a) and 4(b) above, the Commission may issue a Permit allowing work which results in the loss of a portion of Freshwater Wetland when:
 - 1. said portion has a surface area of less than five hundred square feet;
 - 2. said portion extends in a distinct linear configuration ("Finger-like") into adjacent uplands; and
 - 3. in the judgement of the Commission it is not reasonable to scale down, redesign or otherise change the proposed work so that it could be completed without loss of said wetland.
- (d) Notwithstanding the provisions of 4(a), (b), and (c) above, no project may be permitted which will have any adverse effect on water quality, flood control, or habitat sites of rare vertebrate or invertebrate species (currently no rare or endangered species habitat sites have been identified in Wenham.)

10.56 Water Bodies, Waterways (Lakes, Creek, Streams, Rivers, Flats, Ponds) and Land Under Water Bodies and Waterways

- (1) <u>Preamble</u> Water Bodies, Waterways and Land Under Water Bodies and Waterways are likely to be significant to public and private water supply, to ground water supply, to flood control, to storm damage prevention, to prevention of pollution and to protection of fisheries and wildlife habitat.
- (2) Definition, Critical Characteristics and Boundary
- (3) Presumption*
- (4) General Performance Standards
 - (a) Where the presumption set forth in 10.56(3) is not overcome, any proposed work

within the Water Body, Waterway or Land Under Water Body or Waterway shall not impair the following

1.-3.*

- 4. The capacity of these areas to provide important wildlife habitat functions.
- (b) *
- (c) *

10.57 Land Subject to Flooding

- (1) Preamble*
- (2) <u>Definition, Critical Characteristics</u>, and Boundary*
- (3) Presumption*
- (4) General Performance Standards*

10.58 Buffer Zones

(1) <u>Preamble</u> It has been the Commission's experience that projects undertaken in close proximity to the wetlands areas have high likelihood of resulting in some alteration of those areas, either immediately, as a consequence of construction, or over a longer period of time, as a consequence of daily operation of the completed project. Accordingly, these regulations require that any person intending to perform work within 100 feet of an area specified in section 10.02 (1)(a-e) must submit to the Conservation Commission either a Request for Determintaion of Applicability or an Application for a Permit. This way, the Commission has an opportunity to review the proposed project to determine whether any alteration is in compliance with other applicable performance standards.

If in response to a Request for Determination of Applicability, the Commission finds that work within the Buffer Zone will not alter the area specified in section 10.02 (1)(a-e), it may issue a Negative Determination of Applicability, with or without conditions.

- (2) Definitions, Critical Characteristics and Boundary
 - (a) Definition: The Buffer Zone is that area of land extending 100 feet horizontally outward from the boundary of any wetland, waterbody, bank, floodplain area specified in section 10.02(1)(a-e).
 - (b) Critical Characteristics: Where surface runoff or groundwater from the Buffer Zone drains toward these area (10.02(1)(a-e), vegetative cover and soils may filter runoff and provide uptake or renovation of pollutants from adjacent areas, thereby protecting water quality within the resource area. The vegetation and soils may slow surface runoff and permit infiltration of precipitation, maintaining the hydrologic regime to which the resource area is adapted.

Where surface water or groundwater from the Buffer Zone does not drain toward the areas specified in 10.02(1)(a-e), the topography and soils characteristics may help to control the surface and groundwater regime in the area.

(3) <u>Presumption</u>: Based on experience to date with projects in the Buffer Zone, the Commission shall presume that work in the categories below, closer than the tabulated distances from an area specified in 10.02(1)(a-e), will result in alteration of the area. This presumption is rebuttable and may be overcome upon a clear showing that the nature of the proposed work, special design measures, construction controls, or site conditions will prevent alterations of the area specified in 10.02(1)(a-e). Depending on site conditions and project characteristics, the Commission may also find that work at greater distances from the area specified in 10.02(1)(a-e) will alter the resource area.

For the purposes of the table below: "work" means filling, excavation, grading, operation of motorized construction equipment, and storage or stockpiling of earth or construction materials; and "building" means a structure requiring a building permit.

Distances from areas specified in 10.02(1)(a-e):

Type of project: Limit of work: Limit ofbuilding

Single Residential 30 ft. & 2 ft. 50 ft.

Lot vertically

Subdivision lot (2 or 50 ft. & 2 ft. 50 ft. more units) with lot prepara- vertically

tion done in conjunction with

road construction

Commercial/industrial/ 50 ft. & 2 ft. 75 ft.

Institutional vertically

Driveways and utilities 20 ft. (except for permitted

crossings) and 2 ft. vertically

Distances from areas specified in 10.02(1)(a-e):

Type of project: Limit of work: Limit ofbuilding

Minor street, subdivision 25 ft. (except for permitted roads and other roads crossings) and 2 ft.

vertically

Septic systems (all elements 100 ft. 100 ft. amd components including grading for break-out requirements and clay barriers)

Underground storage tanks 200 ft.

The following activities within the Buffer Zone are presumed not to alter areas specified in 10.02(1) (a-e). This presumption is rebuttable and may be overcome when the nature of the work or site conditions will result in alteration of an area specified in 10.02(1)(a-e) unless special preventive measures are taken.

- (a) Discharge of subsurface drainage from a single residential lot or residential building.
- (b) Discharge of roof and driveway runoff from a total impervious area of less than 4000 square feet (per project) meeting the above separation distances.
- (c) Mowing or cutting vegetation to within 20 feet of an area specified in 10.02(1)(a-e), provided that soil is not exposed to erosion and that sod cover or natural litter layer is maintained.
- (d) Landscape plantings, to within 20 feet of an area specified in 10.02(1)(a-e), provided that areas disturbed are mulched immediately and there is no change in grade.
- (e) Construction or installation of fences or structures not requiring a building permit where no extensive filling or grading of the area is involved.
- (f) Soils borings carried out to gather information for submittal with an Application for a Permit.

(4) General Performance Standards

- (a) One of the following must apply:
 - (1) Any work within the Buffer Zone shall not result in alteration of any area specified in 10.02(1)(a-e), or
 - (2) If work within the Buffer Zone which alters an area specified in 10.02(1)(a-e) is permitted by the Commission, the alteration of the area shall comply with the applicable performance requirements for the altered area and any other conditions the Commission may require to enforce those performance requirements.
- (b) Point discharge of surface runoff within or through the Buffer Zone shall be controlled to minimize increases in peak flow in the watercourse downstream of the discharge point for the runoff, as determined for the 2-year, 10-year, and 100-year storms, and to cause no increase in flood elevations outside the project site.

For projects with over 40,000 square feet of added impervious surface, there shall be no increase in peak flow rates in the watercourse immediately downstream of the discharge point.

For projects with 4000 to 40,000 square feet of added impervious surface, the best practical measures shall be used to minimize increase in flow rates.

- (c) Protective vegetative cover is to be maintained on all embankments facing lakes, ponds, marshes, estuaries, rivers and streams.
- (d) No clear cutting of standing trees and surface vegetation; thinning of trees to spacing

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not to exceed 20 feet; low brush within 20 feet of a wetland may be topped to a height of 3 feet or replaced with Commission approved preferred wetland species.

(e) Any area in the buffer zone proposed for removal of vegetation where soil will be exposed for more than 20 days shall be mulched or otherwise treated to prevent erosion.

10.59 Rare Species*

10.60 Wildlife and Wildlife Habitat Evaluations*

10.99 Forms*

Appendices*